

Nutritional Support

Reducing exposure to toxins whilst consuming key nutrients will support liver function.

Antioxidant nutrients - vitamins A, C and E, in combination with the minerals selenium and zinc help the liver render free radicals harmless.

Bioflavonoids - these plant compounds are very powerful antioxidants.

Calcium-D-Glucarate - this compound, found in fruits and vegetables increases the rate of toxin elimination.

Diindolylmethane - a compound found in cruciferous vegetables (broccoli, watercress, cauliflower, cabbage) that aids the metabolism of hormones.

Glutathione - an antioxidant that lends crucial support in phase 2 of the detoxification process.

Co-enzyme Q10 - found in flesh food such as meat and fish, it is crucial for the release of energy in cells.

Amino acids - these "building blocks" of proteins are a major part of the detoxification system.

Lecithin - found in plant foods, it helps the liver break down cholesterol.

Herbs

Milk Thistle - this has well established benefits to liver health. It contains the compound silymarin which has been shown to protect liver cells from toxic agents.

Dandelion - a diuretic and laxative, dandelion has traditionally been used to support the liver.

Phyllanthus - a herb traditionally used in Ayurvedic medicine containing lignans and flavonoids which are plant antioxidants.

Supporting the liver is vital to ensuring optimal health; a perfectly functioning liver can help reduce the risk of developing degenerative diseases and can promote healthy aging.



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Liver Support

Toxic Environment

pollution

medication

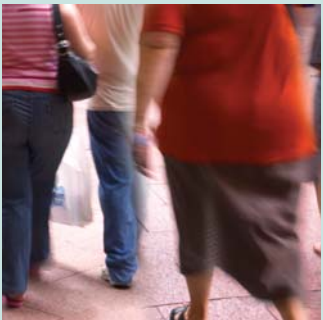
alcohol

cigarette
smoke

food additives

car exhaust
fumes...

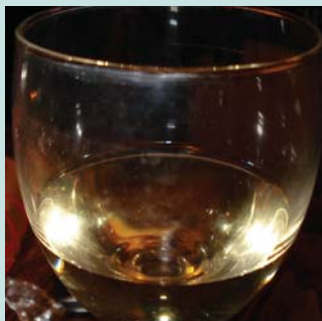
...your **liver**
has to **eliminate**
all of these **toxins.**



The liver

The liver is the hardest working organ in the body. In addition to protecting us from environmental toxins, the liver:

- a. filters out toxins produced by the body such as bacterial waste and hormones.
- b. is crucial for digestion and the building of tissues such as muscle.
- c. contains Kupffer cells which help fight infection.
- d. is the site of red blood cell production.
- e. is the storage site for several nutrients including iron and vitamin A.



The detoxification process

The liver has two detoxification pathways, known as Phase 1 and Phase 2

Phase 1 - a system of enzymes in the liver known as cytochrome P450 breaks down toxins to prepare them for excretion.

Phase 2 - toxic chemicals known as free radicals produced during phase 1 are linked to water soluble molecules and excreted.

The rate at which the liver processes toxins is determined by both genetics and lifestyle. If the system becomes unbalanced, the liver will be unable to effectively eliminate toxins. The body's response and ability to deal with toxins varies between individuals and is thought to be a primary factor in susceptibility to certain diseases such as fibromyalgia. Toxic overload is linked to fatigue, depression, premature aging, weight gain, allergies and conditions such as arthritis, cardiovascular disease, Alzheimer's and Parkinson's.

Common clinical symptoms and conditions associated with environmental toxicity

- Abnormal pregnancy outcomes
- Atherosclerosis
- Broad mood swings
- Cancer
- Chronic fatigue syndrome
- Chronic immune system depression
- Contact dermatitis
- Fatigue
- Fertility problems
- Fibromyalgia
- Headaches
- History of increasing sensitivity to external exposures, odours, or medications
- Joint pain
- Kidney dysfunction
- Learning disorders
- Memory loss
- Mineral imbalances (particularly zinc and calcium)
- Multiple chemical sensitivities
- Muscle pain and weakness
- Nonresponsive or recurrent yeast infections
- Panic attacks
- Parkinson's disease
- Tinnitus
- Unusual responses to medications or supplements
- Worsening of symptoms after anaesthesia or pregnancy



Diet

Foods to aid the liver include:

- Cruciferous vegetables, such as broccoli, cabbage and watercress.
- Antioxidant rich, vibrantly coloured fruits and vegetables, such as berries.
- High quality proteins, such as pulses, nuts and seeds.
- Wholegrain rice and quinoa.



Reduce exposure to toxins by moderating consumption of:

- Caffeine, including cola and chocolate
- Refined sugars
- Food additives
- Alcohol